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EXAMINER
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CHAMBERS, TANGELA T

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2617

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ELECTRONIC

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### **DETAILED ACTION**

1. This action is in response to the amendment and arguments filed on 11/24/2009.
  - (a) Claims 1, 4-5, 10, 12-14, 17-20, 22-24, 26-30, 33, 35-37 and 39 have been amended.
  - (b) Claims 3, 11, 21, 25, 31, 34, 38 and 40-42 have been canceled.
  - (c) Claims 1-2, 4-10, 12-20, 22-24, 26-30, 32-33, 35-37, 39 and 43-46 are rejected.

### ***Response to the Arguments***

2. The applicant's arguments filed on 11/24/2009 have been fully considered, but they are not persuasive. In the Remarks, the applicant has argued in substance:
  - (1) The applicant argued features, ie. repeatedly causing transmission of information relating to timing of transmissions of service identification data and a given frequency of the channel at which the transmission of the service identification data will occur.

#### **Response:**

- (1) The argued features read upon an analogous art, McKenna.

McKenna discusses continuously transmitting a frame to mobile devices containing control information, content and a guide. The control information, as taught by McKenna, contains information such as the traffic channel on which the frame, which contains the guide, is to be broadcast as well as the time at which the frame is to be transmitted. McKenna is used to modify primary references to show such features were known in the art at the time the invention was made.

As a result, the argued features are shown and read upon the references as follows:

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2617

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-8, 10, 13-17, 19-20, 22-24, 26-27, 32, 43-44 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonomi et al (Bonomi) (US Patent No. 6,769,127 B1), in view of Pekonen (US Patent Publication No. 2003/0152107 A1), in further view of McKenna et al (McKenna) (US Patent Publication No. 2002/0019228 A1).

As per claims 1, 10, 43 and 46, Bonomi discloses:

- **causing transmission of a plurality of services**, (Bonomi, Abstract and Column 3, Lines 5-26, Column 6, Lines 21-44 and Column 20, Lines 9-26, “The broadcast data service module 608 serves to guide the retrieval of the media content from the media database and cause the media content to be transmitted (e.g., streaming) over the network.”).
- **each of the services comprising one or more service components, at least some of the service components having different media formats**, (Bonomi, Column 3, Lines 14-26, Column 5, Lines 32-46, Column 6, Lines 21-44 and Column 33, Lines 30-57, “The server 106 can provide continuous media services, such as live transmission, video-on-demand and audio-on-demand, to its subscribers. The server 106 can also provide video/audio mail services, Internet access, and commercial information to its subscribers.”).
- **the service components for a given service being transmitted in a time-sliced manner on a given channel**; (Bonomi, FIG. 11A and Column 28, Lines 5-25, “The program guide area 1102 displays a program guide of the various channels and programs being offered as live assets by the media system. The programs are arranged in a grid-like fashion with rows pertaining to time slots and columns pertaining to channels.”).

Art Unit: 2617

- ***generating service identification data relating service components to services on that channel;*** (Bonomi, Figs. 15A-15C and Column 8, Line 55 – Column 9, Line 4, Column 28, Lines 5-25 and Column 33, Lines 1-14 and Lines 30-57, “When a channel ... is selected, the show action region 1528 shows relevant information 1529 about the channel[.]”).
- ***repeatedly causing transmission of the service identification data on the channel;*** (Bonomi, FIG. 5C and 15C, Column 18, Lines 19-34 and Column 34, Lines 42-56, “As described above, the program guide 1540 is updated at the server side and may be downloaded at request or automatically at determinable times controlled by the media delivery center.”), Bonomi teaches a program guide which contains the service identification data on the channel that can be transmitted automatically.
- ***providing service selection for a mobile terminal,*** (Bonomi, Column 17, Line 56 – Column 18, Line 5, Column 33, Lines 9-14 and Column 35, Lines 1-22, “Each of the toolbar region 1504 and the commerce region 1506 may include one or more selectable items that allow a user to select a desired service/application being provided by the server.”).

Bonomi teaches transmitting service components but does not specifically disclose the following limitations. However, Pekonen in an analogous art discloses:

- ***wherein the service components are transmitted in bursts with an interval between end of a first burst and start of a second burst,*** (Pekonen, Abstract and Paragraphs [0003]-[0005] and [0086]-[0090], “A value for the time to next burst time-slice parameter 2212 can be used to specify an amount of time between transmission of a current packet and the first packet of the next transmitted burst of packets--regardless of whether the next burst is an original burst or a copy burst--from the same data service of the same information service provider.”).
- ***content of consecutive bursts is the same or at least partly different;*** (Pekonen, Paragraphs [0084]-[0085], “Bursts of packets can be transmitted more than once.”).

Art Unit: 2617

Bonomi teaches service identification data can be transmitted automatically (repeatedly) based on requests (immediate delivery) or per a schedule but does not specifically disclose:

- ***repeatedly causing transmission of information relating to timing of transmissions of the service identification data and a given frequency of the channel at which the transmission of the service identification will occur,***

However, McKenna in an analogous art discloses the limitation. (McKenna, Paragraphs [0087]-[0088] and [0184]-[0185], "The Administration 802 can include a Radio Frequency Configuration segment 811 that defines the Traffic channel on which the frame is to be broadcast. The remaining segments of the Administration 802 consist of a "Program Guide" 812 which includes a schedule segment 821 to define the time at which the frame is to be transmitted [.]" ), McKenna teaches continuously transmitting frames containing service identification data information to mobile terminals.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Pekonen and McKenna into the teaching of Bonomi to transmit service components in bursts and repeatedly transmit the frequency and time at which transmission of the service identification will occur. The modification would be obvious because one of ordinary skill in the art would want to benefit of reducing power consumption levels, improving operating efficiency of the broadcasting equipment and concurrently communicating data to a dynamically changing audience of mobile terminals. (Pekonen, Paragraph [0002], McKenna, Paragraph [0006]).

As per claims 4, 13, 22 and 26, Bonomi further discloses:

- ***wherein the generating service identification data relating service components to services comprises identifying the media format of each service component;*** (Bonomi, FIG. 11A and Column 28, Lines 5-25), Bonomi teaches showing relevant information about the channel, including the media format.

Art Unit: 2617

As per claims 5 and 14, Bonomi further discloses:

- ***causing transmission of the information relating to the timing of transmissions of the service identification data in a network different than that used for the transmitting the service identification data on the channel,*** (Bonomi, Figs. 1A-1B, Column 7, Lines 9-32 and Column 17, Lines 45-55), Bonomi discloses different networks including a wireless network which could be used to transmit the program guide containing the timing information to the mobile terminal.

As per claims 6 and 15, Bonomi further discloses:

- ***wherein transmitting the information relating to the timing of transmissions of the service identification data is performed in response to an inquiry from a mobile terminal,*** (Bonomi, FIG. 5C and 15C, Column 18, Lines 19-34 and Column 34, Lines 42-56, “As described above, the program guide 1540 is updated at the server side and may be downloaded at request or automatically at determinable times controlled by the media delivery center.”), Bonomi teaches a program guide which contains timing information that can be transmitted at the request of a mobile terminal.

As per claims 7 and 16 they are rejected under the same reasons as set forth in connection of the rejections of claims 5-6.

As per claims 8, 17 and 27, Bonomi further discloses:

- ***using the service identification data to generate a service guide for one or more services,*** (Bonomi, Figs. 5B and 15C and Column 18, Lines 20-34 and Line 53 – Column 19, Line 14, “Initially, a program guide is generated or updated 532. The program guide may be viewed as a tablet, if displayed, that lists many time slots, each is associated with a program to be broadcast as scheduled.”).

As per claims 19, 23 and 44, Bonomi discloses:

Art Unit: 2617

- ***an apparatus***, (Bonomi, Column 7, Lines 10-32, “Examples of the terminal device 110 may include a desktop computer, a laptop or notebook computer, a set-top box, and a mobile device.”).
- ***a receiver configured to receive at least one repeated transmission of information***, (Bonomi, Column 18, Line 53 – Column 19, Line 14, “On the other hand, when it is determined that there are such requests or it is time to deliver an updated program guide, then an updated program guide shall be delivered to the client machines receiving services from the media delivery center.”).
- ***a tuner configured to decode service identification data, the service identification data relating service components on the channel to services;*** (Bonomi, FIGS. 3B and 11A, Column 11, Lines 54-67, Column 12, Lines 1-24 and Column 28, Lines 5-25, “The selected channel pertains to the channel that has been selected with respect to the program guide illustrated in the program guide area 1102.”), Bonomi teaches a program guide containing timing information and user using the program guide to tune to an appropriate channel.
- ***a processor configured to subsequently obtain, from service components transmitted in a time-sliced manner on the channel, required service components of a service***, (Bonomi, FIG. 11A, Column 18, Lines 53 – Column 19, Line 14 and Column 28, Lines 5-25).
- ***the apparatus is a mobile terminal***, (Bonomi, Column 7, Lines 10-32), Bonomi teaches a mobile device.

Bonomi teaches receiving service components but does not specifically disclose the following limitations. However, Pekonen in an analogous art discloses:

- ***wherein the service components are arranged to be received in bursts with an interval between end of a first burst and start of a second burst***, (Pekonen, Abstract and Paragraphs [0003]-[0005], [0045] and [0084], “When the encapsulator has received at least two bursts worth of information from an information service provider and has received whatever data the transmitter will send between two such bursts, the



Art Unit: 2617

encapsulator can determine how much time will elapse between transmission of the first burst and transmission of the second burst.”).

- ***content of consecutive bursts is the same or at least partly different***, (Pekonen, Paragraphs [0084]-[0085]).

Bonomi teaches receiving service identification data that has been transmitted automatically based on requests or per a schedule but does not specifically disclose the following limitations. However, McKenna in an analogous art discloses:

- ***receiving information relating to timing of transmissions of service identification data and a given frequency of the channel at which the transmission of the service identification will occur***, (McKenna, Paragraphs [0087]-[0088] and [0184]-[0185], “The Administration 802 is used to convey various control information to the Base Station Subsystem and to the wireless subscriber device.”), McKenna teaches continuously transmitting frames to mobile terminals containing the time for receiving and frequency of service identification data.
- ***use the information to tune to the channel at an appropriate time***, (McKenna, Paragraphs [0087]-[0088] and [0184]-[0185], “[T]he information can be passed directly to the wireless subscriber devices for parsing therein.”).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Pekonen and McKenna into the teaching of Bonomi to receive service components in bursts and receive at least one repeated transmission of the frequency and time at which transmission of the service identification will occur. The modification would be obvious because one of ordinary skill in the art would want to benefit of reducing power consumption levels and improving operating efficiency of the broadcasting equipment and concurrently communicating data to a dynamically changing audience of mobile terminals. (Pekonen, Paragraph [0002], McKenna, Paragraph [0006]).

As per claims 20 and 24, Bonomi further discloses:

Art Unit: 2617

- ***wherein the service identification data relates service components on the channel to services***, (Bonomi, Figs. 15A-15C and Column 8, Line 55 – Column 9, Line 4, Column 28, Lines 5-25 and Column 33, Lines 1-14 and Lines 30-57).

As per claim 32, Bonomi further discloses:

- ***providing service selection data using the method of claim 23***; (Bonomi, Column 18, Lines 6-34, Column 33, Lines 30-57 and Column 34, Lines 21-41, “The program guide 520 originally lists all the channels being serviced by the media delivery center.”).
- ***following selection of a displayed service set, service or service component, tuning to the correct channel at the appropriate time when the selected service set, service or service component is being transmitted***, (Bonomi, FIGS. 3B and 11A, Column 11, Lines 54-67, Column 12, Lines 1-24 and Column 28, Lines 5-25).

Claims 2, 9, 12, 18 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonomi et al (Bonomi) (US Patent No. 6,769,127 B1), in view of Pekonen (US Patent Publication No. 2003/0152107 A1), in view of McKenna et al (McKenna) (US Patent Publication No. 2002/0019228 A1), in further view of Perkes (US Patent Publication No. 2003/0110503 A1).

As per claims 2 and 12, Bonomi teaches generating service identification data but does not specifically disclose:

- ***generating data identifying the media format of each service component***, However, Perkes in an analogous art discloses the limitation. (Perkes, FIG. 13 and Paragraphs [0228]-[0229], “In another embodiment, the metadata descriptor of a media object may include information relating to: name of the media object, duration of the media object, genre of the media object, creator of the media object, affinity and parent groups of the media object, other media objects associated and linked to media object,

Art Unit: 2617

rules for combining the media object with other media objects, owner of the media object, and/or value of the media object”).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Perkes into the teaching of Bonomi, Pekonen and McKenna to generate data identifying the media format of each service component. The modification would be obvious because one of ordinary skill in the art would want a way to provide consumers with digital media in an on demand format in an organized manner. (Perkes, Paragraph [0011]-[0012]).

As per claims 9 and 18, Bonomi further discloses:

- ***receiving the service identification data at a mobile terminal;*** (Bonomi, Fig. 15C, Column 18, Line 6 – Column 9, Line 14, Column 28, Lines 5-54 and Column 34, Lines 21-41, “[T]he program guide 520 is implemented with a markup language and is downloaded to a client machine for display and updated at predefined times.”), Bonomi teaches that the guide containing the service identification data may be displayed on a client machine (mobile terminal).

Bonomi teaches customizing program guides and allowing subscribers to reorder the listing of channels but does not specifically disclose:

- ***at the mobile terminal, hierarchically arranging the services including the service components from the received service identification data,*** However, Perkes in an analogous art discloses the limitation. (Perkes, Figs. 15-17 and Paragraphs [0065]-[0066], “For example, the consumer may choose to view the content displayed in the guide in a different format than the default format and may customize the guide by adding or subtracting categories or genres, and by bookmarking favorite content.”), Perkes teaches that the program guide containing the service identification data may be customized (arranged) by the user and presents drawings of the services and service components in hierarchical formats.

Art Unit: 2617

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Perkes into the teaching of Bonomi, Pekonen and McKenna to hierarchically arrange services at the mobile terminal. The modification would be obvious because one of ordinary skill in the art would want a way to provide consumers with digital media in an on demand format in an organized manner. (Perkes, Paragraph [0011]-[0012]).

As per claim 29, Bonomi teaches customizing program guides but does not specifically disclose:

- ***wherein hierarchically arranging services comprises using data items describing the various service components for categorizing received content items***, However, Perkes in an analogous art discloses the limitation. (Perkes, Figs. 15-17 and Paragraphs [0062]-[0063] and [0065]-[0066], "In the process of the selection of content to be delivered, the Content Manager collects certain data regarding the content ("content data"), including but not limited to the type of content, category or genre, content title and other details, such as principal performers, run time and content provider").

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Perkes into the teaching of Bonomi, Pekonen and McKenna to hierarchically arrange services using data items describing the various service components. The modification would be obvious because one of ordinary skill in the art would want a way to provide consumers with digital media in an on demand format in an organized manner. (Perkes, Paragraph [0011]-[0012]).

As per claim 30, Perkes further discloses:

- ***wherein the content items are categorized according to content type***, (Perkes, Paragraphs [0062]-[0063] and [0065]-[0066], "For instance, instead of the priority, or order, in which The Delivery Scheduler function delivers the content, the

Art Unit: 2617

consumer may want to see all movies displayed first, or all audio selections displayed first.”).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Perkes into the teaching of Bonomi, Pekonen and McKenna to categorize content items according to content type. The modification would be obvious because one of ordinary skill in the art would want a way to provide consumers with digital media in an on demand format in an organized manner. (Perkes, Paragraph [0011]-[0012]).

Claims 28, 33, 35-37 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perkes (US Patent Publication No. 2003/0110503 A1), in view of Pekonen (US Patent Publication No. 2003/0152107 A1), in further view of McKenna et al (McKenna) (US Patent Publication No. 2002/0019228 A1).

As per claims 28 and 45, Perkes discloses:

- ***receiving service identification data relating service components at a given frequency to services and relating services at the given frequency to service sets;*** (Perkes, Paragraphs [0224], [0265] and [0269], “Further, the XPG may allow multiple processes to occur simultaneously, and in some cases, to be combined (e.g. listening to a play list of music or an internet radio station while viewing the picture from a live TV broadcast, DVD, or previously recorded program.”), Perkes teaches receiving service identification data in a program guide relating services to service sets (services from one or more content providers bundled together).
- ***the service components for a given service being transmitted in a time-sliced manner on a given channel,*** (Perkes, Paragraphs [0063]-[0064], [0078] and [0250], “The Channels may be reflected in a Channel Guide, which provides information including, but not limited to, the Channel name, Channel identifier (either that provided by the Broadcaster or the Viewer), Broadcast Segment size and run time[.]”).

Art Unit: 2617

- ***hierarchically arranging services including the appropriate service components;*** (Perkes, Figs. 15-17 and Paragraphs [0065]-[0066], “For example, the consumer may choose to view the content displayed in the guide in a different format than the default format and may customize the guide by adding or subtracting categories or genres, and by bookmarking favorite content.”), Perkes teaches that the program guide containing the service identification data may be customized (arranged) by the user and presents drawings of the services and service components in hierarchical formats.
- ***displaying the different service sets, services or service components,*** (Perkes, Paragraph [0065], “This is a computer program, which collects the content data into a ticker type electronic programming guide format ("guide"), which enables the consumer to review, preview and otherwise customize the manner in which the guide displays the delivered content.”).
- ***providing service selection data on a display,*** (Perkes, Paragraphs [0012]-[0013], “In a further embodiment, visual objects associated with the media objects may be displayed to the user via the interface.”).

Perkes teaches transmitting service components but does not specifically disclose the following limitations. However, Pekonen in an analogous art discloses:

- ***wherein the service components are received in bursts with an interval between end of a first burst and start of a second burst,*** (Pekonen, Abstract and Paragraphs [0003]-[0005], [0045] and [0084], “When the encapsulator has received at least two bursts worth of information from an information service provider and has received whatever data the transmitter will send between two such bursts, the encapsulator can determine how much time will elapse between transmission of the first burst and transmission of the second burst.”).
- ***content of consecutive bursts is the same or at least partly different;*** (Pekonen, Paragraphs [0084]-[0085], “Bursts of packets can be transmitted more than once.”).

Art Unit: 2617

Perkes teaches receiving information related to the service identification data but does not specifically disclose:

- ***receiving information relating to timing of transmissions of the service identification data and a given frequency of the channel at which the transmission of the service identification data will occur***, However, McKenna in an analogous art discloses the limitation. (McKenna, Paragraphs [0087]-[0088] and [0184]-[0185], "The Administration 802 is used to convey various control information to the Base Station Subsystem and to the wireless subscriber device."), McKenna teaches continuously transmitting frames to mobile terminals containing the time for receiving and frequency of service identification data.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Pekonen and McKenna into the teaching of Perkes to receive service components in bursts and receive at least one repeated transmission of the frequency and time at which transmission of the service identification will occur. The modification would be obvious because one of ordinary skill in the art would want to benefit of reducing power consumption levels and improving operating efficiency of the broadcasting equipment and concurrently communicating data to a dynamically changing audience of mobile terminals. (Pekonen, Paragraph [0002], McKenna, Paragraph [0006]).

As per claim 33, it is rejected under the same reasons set forth in connection of the rejection of claim 28 and further Perkes discloses:

- ***wherein the apparatus comprises a mobile terminal***, (Perkes, FIG. 11, Paragraph [0129]), Perkes teaches that the guide containing the service identification data may be displayed on a lap-top or hand-held computer (mobile terminal).

As per claim 35, Perkes further discloses:

Art Unit: 2617

- ***a receiver configured to receive service identification data relating service components at a given frequency to services and relating services at the give frequency to service sets***, (Perkes, Paragraphs [0224], [0265] and [0269]).

As per claim 36, Perkes further discloses:

- ***the controller is configured to use data items describing the various service components to categorize received content items***, (Perkes, Figs. 15-17 and Paragraphs [0062]-[0063] and [0065]-[0066]).

As per claim 37, Perkes further discloses:

- ***the content items are categorized according to content type***, (Perkes, Paragraphs [0062]-[0063] and [0065]-[0066]).

Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perkes (US Patent Publication No. 2003/0110503 A1), in view of Pekonen (US Patent Publication No. 2003/0152107 A1), in view of McKenna et al (McKenna) (US Patent Publication No. 2002/0019228 A1), in further view of Bonomi et al (Bonomi) (US Patent No. 6,769,127 B1).

As per claim 39, Perkes teaches selecting an item from the display but does not specifically disclose:

- ***the content items are categorized according to content type***, However, Bonomi in an analogous art discloses the limitation. (Bonomi, Figs. 3B and 11A, Column 11, Lines 54-67, Column 12, Lines 1-24 and Column 28, Lines 5-25).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Bonomi into the teaching of Perkes, Pekonen and McKenna to use the timing information to tune to an appropriate channel at an appropriate time to obtain the service components. The modification



Art Unit: 2617

would be obvious because one of ordinary skill in the art would want a way to allow a user to select available content while it is available. (Bonomi, Column 28, Lines 5-25).

### ***Conclusion***

4. The prior art considered pertinent to applicant's disclosure is made of record and listed on form PTO-892.

Applicant's amendment necessitated the new ground(s) of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP §706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TANGELA T. CHAMBERS whose telephone number is 571-270-3168. The examiner can normally be reached Monday through Thursday, 10:00am-6:30pm Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro, can be reached at telephone number 571-272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tangela T. Chambers/

Patent Examiner, Art Unit 2617

/NICK CORSARO/

Supervisory Patent Examiner, Art Unit 2617